

## CLAIMS

Having thus described the aforementioned invention, we claim:

1. A method for communicating at least one of vehicle speed and vehicle length information gathered from a vehicle detector, said method comprising the steps of:

- a) measuring at least one of vehicle speed and a vehicle length using a first vehicle detector during a first vehicle detection event;
- b) constructing a first output pulse corresponding to said first vehicle detection event;
- c) outputting said first output pulse on a first output channel corresponding to said first vehicle detector;
- d) inferring from at least one of said speed and said vehicle length information a second vehicle detection event for a second vehicle detector;
- e) constructing a second output pulse corresponding to said second vehicle detection event;
- f) outputting said second output pulse on a second output channel corresponding to said second vehicle detector.

2. The method of claim 1 wherein said first output pulse comprises a first pulse-width, and wherein said second output pulse comprises a second pulse-width; and wherein said second pulse-width is substantially equal to said first pulse-width.

3. The method of claim 1 wherein said first output pulse comprises a first start-time, and wherein said second output pulse comprises a second start-time; and wherein the difference between said second start-time and said first start-time is chosen to be substantially correspond to the quotient of a hypothetical offset distance between said first and second vehicle detectors divided by said vehicle speed.

4. The method of claim 3 wherein said hypothetical offset distance is chosen to substantially correspond to a measured offset distance between one or more pairs of real vehicle detectors.

5. An apparatus for communicating at least one of vehicle speed and vehicle length information gathered from a vehicle detector, said apparatus comprising:

- a) a means for measuring at least one of vehicle speed and a vehicle length during a first vehicle detection event;
- b) a means for constructing a first output pulse corresponding to said first vehicle detection event;
- c) a means for outputting said first output pulse on a first output channel corresponding to said first vehicle detector;
- d) a means for inferring from at least one of said speed and said vehicle length information a second vehicle detection event for a second vehicle detector;
- e) a means for constructing a second output pulse corresponding to said second vehicle detection event;
- f) a means for outputting said second output pulse on a second output channel corresponding to said second vehicle detector.

6. The apparatus of claim 1 wherein said first output pulse comprises a first pulse-width, and wherein said second output pulse comprises a second pulse-width; and wherein said second pulse-width is substantially equal to said first pulse-width.

7. The apparatus of claim 1 wherein said first output pulse comprises a first start-time, and wherein said second output pulse comprises a second start-time; and wherein the difference between said second start-time and said first start-time is chosen to be substantially correspond to the quotient of a hypothetical offset distance between said first and second vehicle detectors divided by said vehicle speed.

8. The apparatus of claim 3 wherein said hypothetical offset distance is chosen to substantially correspond to a measured offset distance between one or more pairs of real vehicle detectors.